WHAT IS CLAIMED

1. Apparatus for performance-monitoring of a synchronous optical network standard signal comprising:

means supplied with the standard optical signal for converting the standard optical signal to an electrical signal;

means for separating from said electrical signal the framing signal portion thereof and leaving in its time slot the noise that was on the framing signal; and

means for separating selectively for inspection such noise from the data power for use as a measure of the quality of the standard optical signal.

2. The apparatus of claim 1 in which the means for separating the noise from the data includes a squaring circuit for increasing the discrimination between the relatively low noise power and the relatively high data power, and a low pass filter circuit for passing selectively the noise power to a display for viewing.

3. The apparatus of claim 2 in which the squaring circuit is a diode.

4. The apparatus of claim 1 in which the means for separating the framing signal from its noise is a notch filter.

5. The apparatus of claim 4 in which the framing signal is separated from the noise in its time slot by a low pass filter including two 50 ohm lengths of transmission line and two one-quarter wavelength stubs of such a transmission line, of which one is shorter and the other open-ended.

6. The apparatus of claim 2 in which the means for separating the framing signal power from the noise power in its time slot is a notch filter.

7. The process for performance monitoring of a SONET standard signal comprising the steps of converting the signal into an electrical signal, separating from said electrical signal the framing signal in a manner to leave the noise in the framing signal time slot and the data power essentially undisturbed, and displaying the noise power in the framing time slot of the separated signal.

8. The process of claim 5 in which before its display the separated signal is treated to increase the difference in level of the noise power in the framing slot and the data power of the signal.